

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# RECORDING JAW RELATIONSHIPS

**Vertical** **H**



**Antro-posterior** **W**

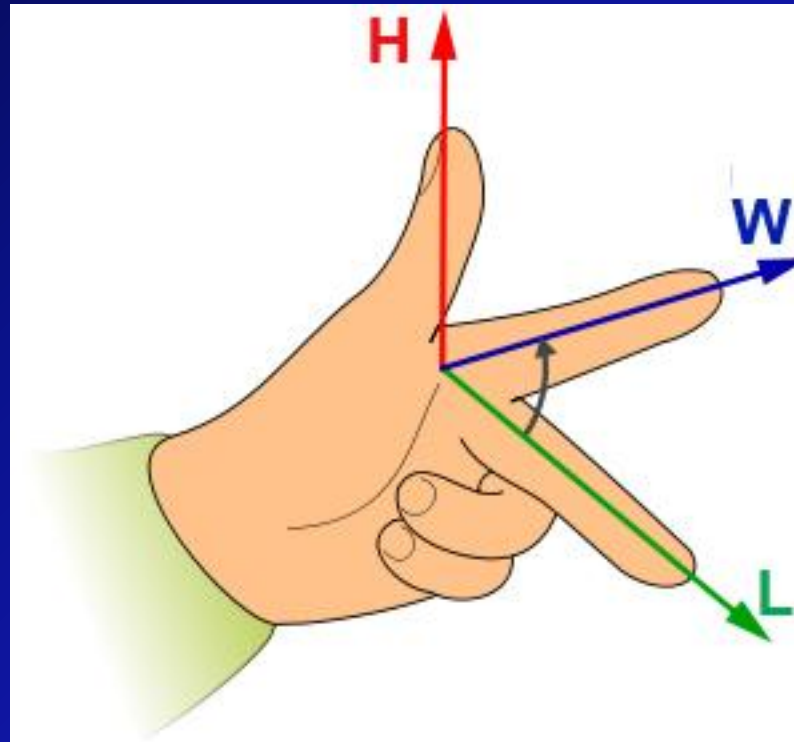


**Medio-lateral**

**L**



# 3 D. OF ANY BODY



# **I- THE VERTICAL DIMENSION**

## **II- THE HORIZONTAL RELATIONSHIP (CENTRIC RELATION)**

**A- Medio-lateral**

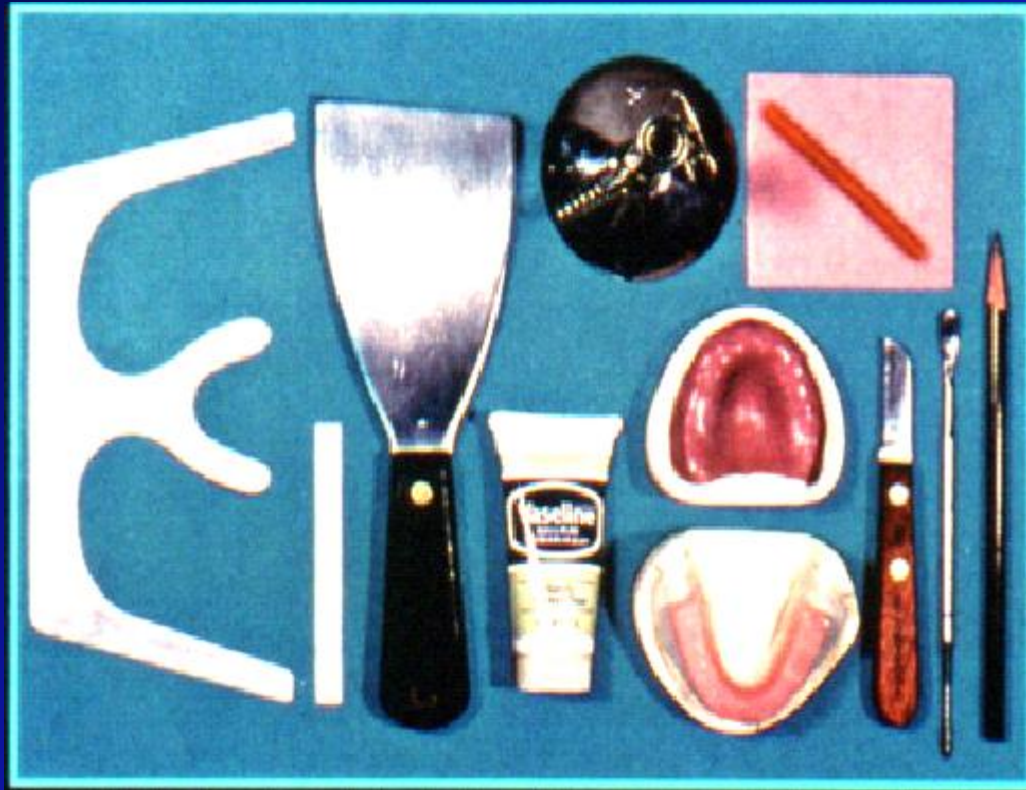
**B- Antro-posterior**

# *Recording jaw relations*

- I. Adjustment of the upper record blocks*
- II. The vertical dimension*
- III. The horizontal relationship (centric relation)*

*Transfer patient's maxillo- mandibular relations to articulator*

# Equipment



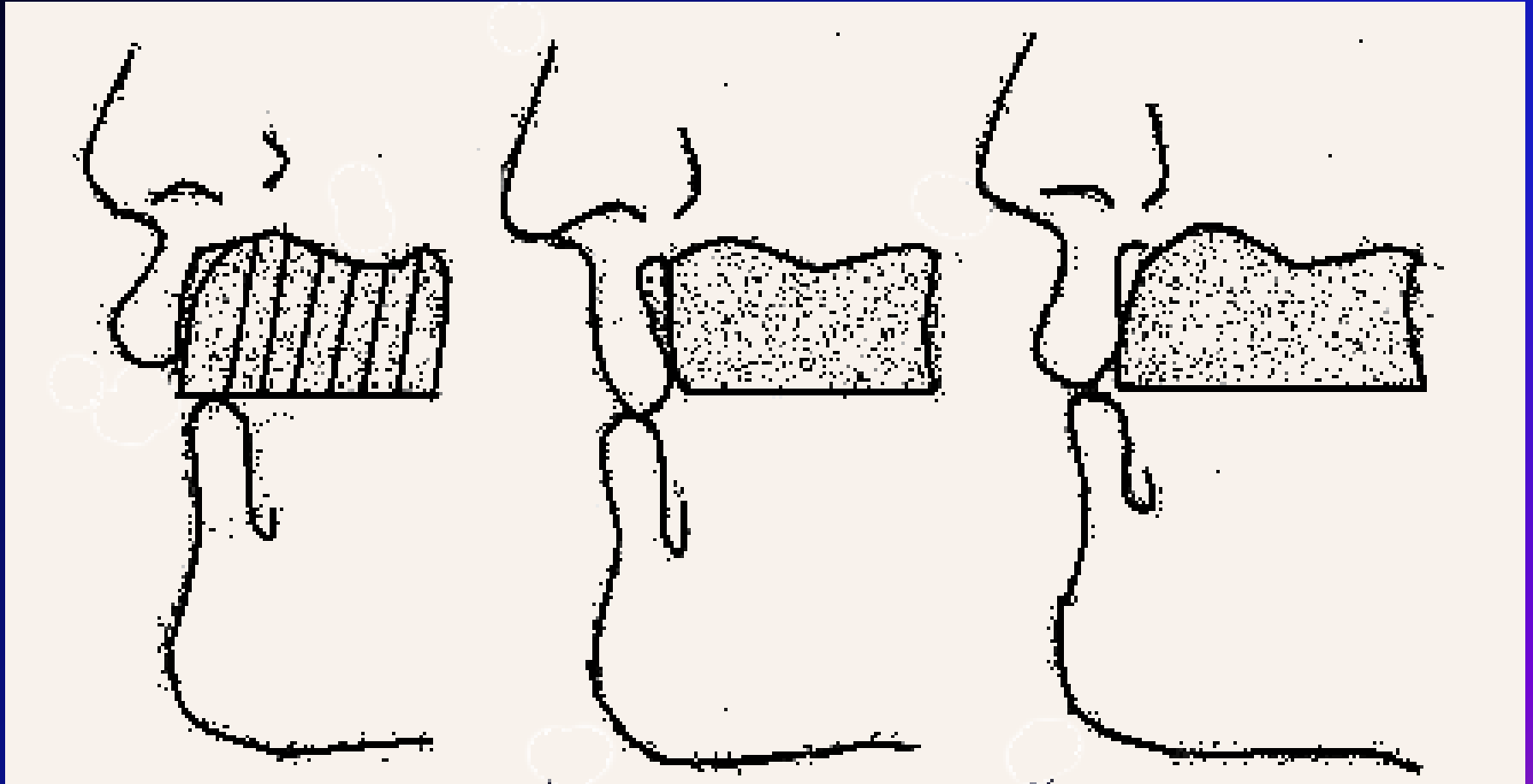
# I- ADJUSTMENT OF THE UPPER RECORD BLOCKS



# **I- ADJUSTMENT OF THE UPPER RECORD BLOCKS**

- 1. Labial Fullness**
- 2. The Height of the Rim**
- 3. Anterior Plane**
- 4. Anteroposterior Plane**
- 5. Post-Damming**
- 6. Guide Lines**

# A- Labial Fullness



# B- The Height of the Rim



**A greater length of teeth than normal will be shown if the patient has:**

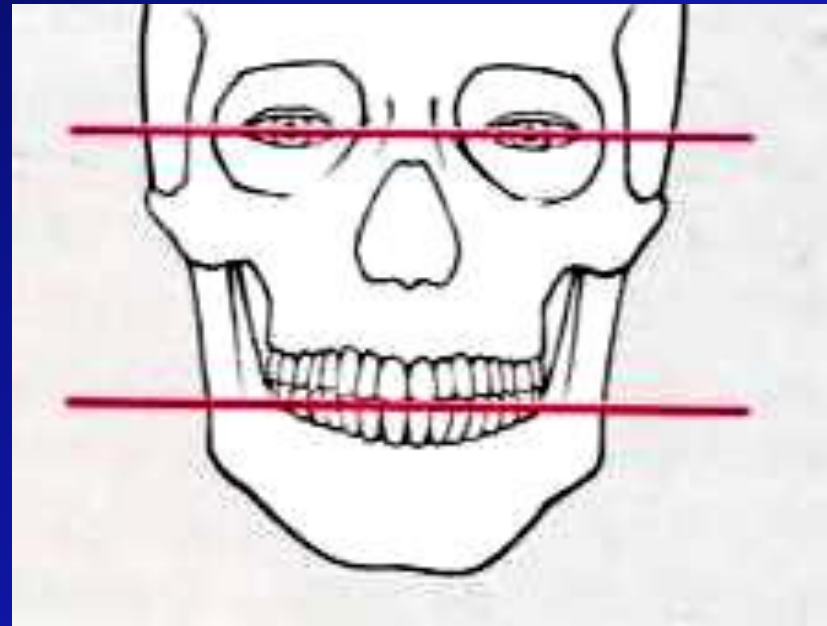
- (a) A short upper lip.**
- (b) Superior protrusion.**

**Less will be shown with:**

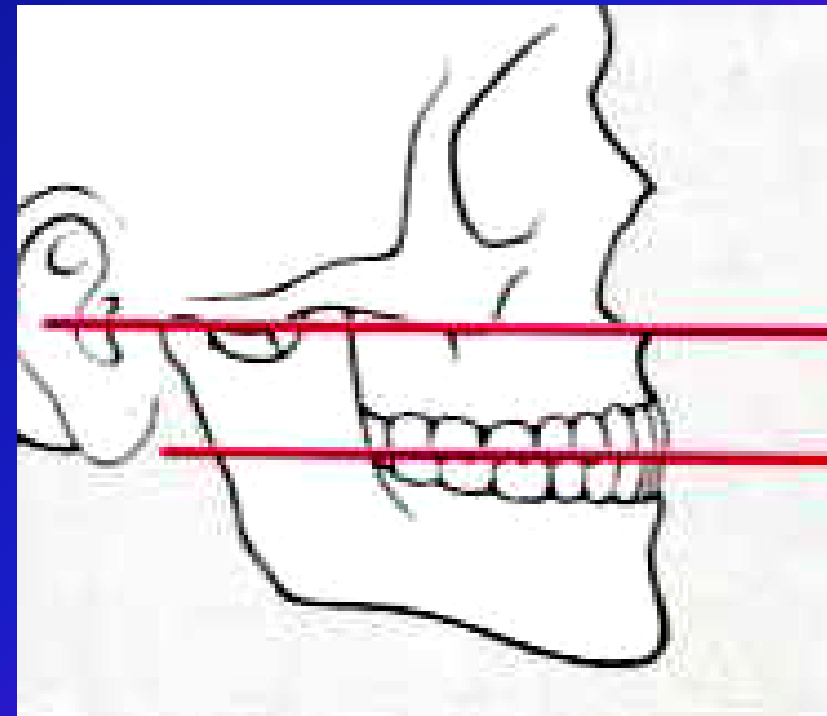
- (a) long upper lip.**
- (b) In most old people (loss of tone of the orbicularis muscle).**



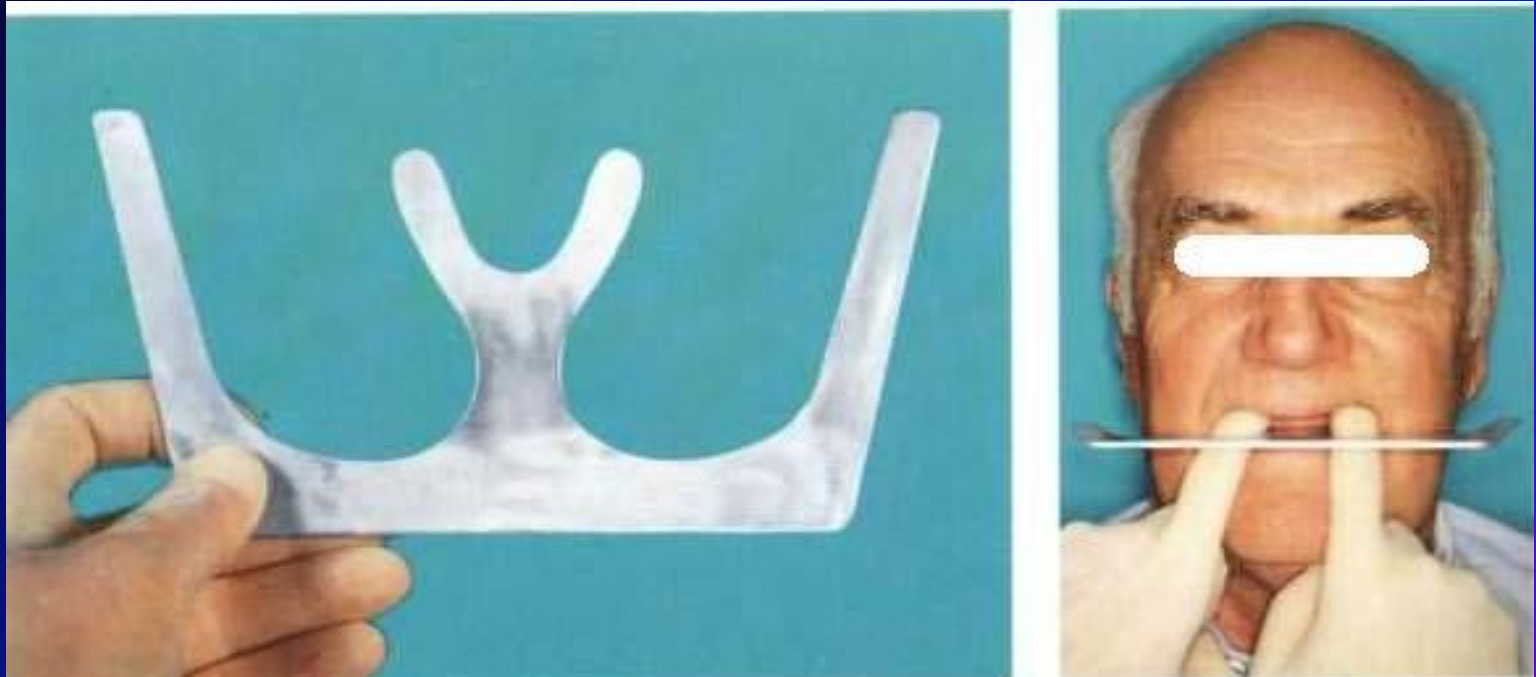
## C- Anterior Plane



## D- Anteroposterior Plane (ala-tragus or Camper's line)



# Adjustment of the anterior occlusal plane



**Occlusal plane indicator (Fox plane)**

# Adjustment of the anteroposterior occlusal plane



# **E- The Position of the Posterior Palatal Border (Post-Damming)**



# The vibrating line



**The depth of post dam is determined by checking compressibility of tissue**



# Function of posterior palatal seal:

1. It increases **retention** of the denture by atmospheric pressure.
2. It **prevents air and food** from getting under the denture.
3. It **reduces reflex irritation and gag** by reducing patient awareness of this area, since there should be no separation of the denture base and soft palate during normal functional movements.
4. Making the **thickness of the base less conspicuous** to the tongue, as, the posterior denture border will approximate the soft tissues.
5. It **compensates for dimensional changes** that are inherent in the laboratory procedures.

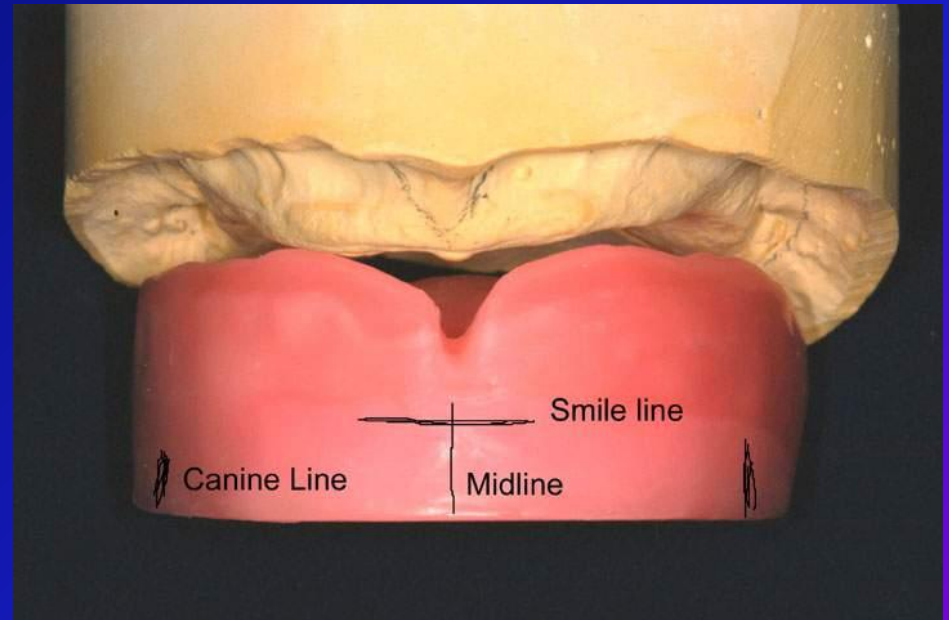
# F- Guide Lines



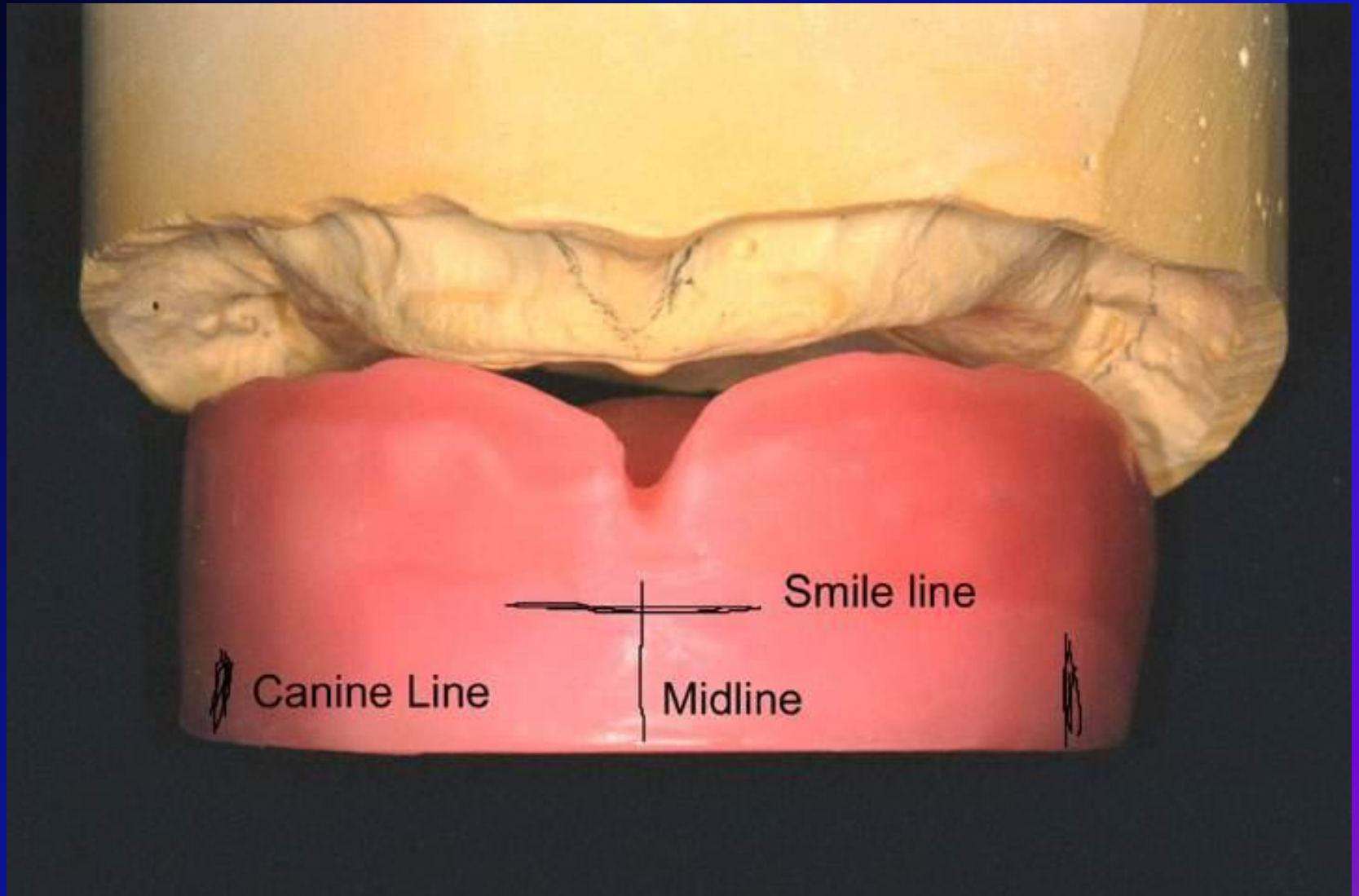
# 1- The center line



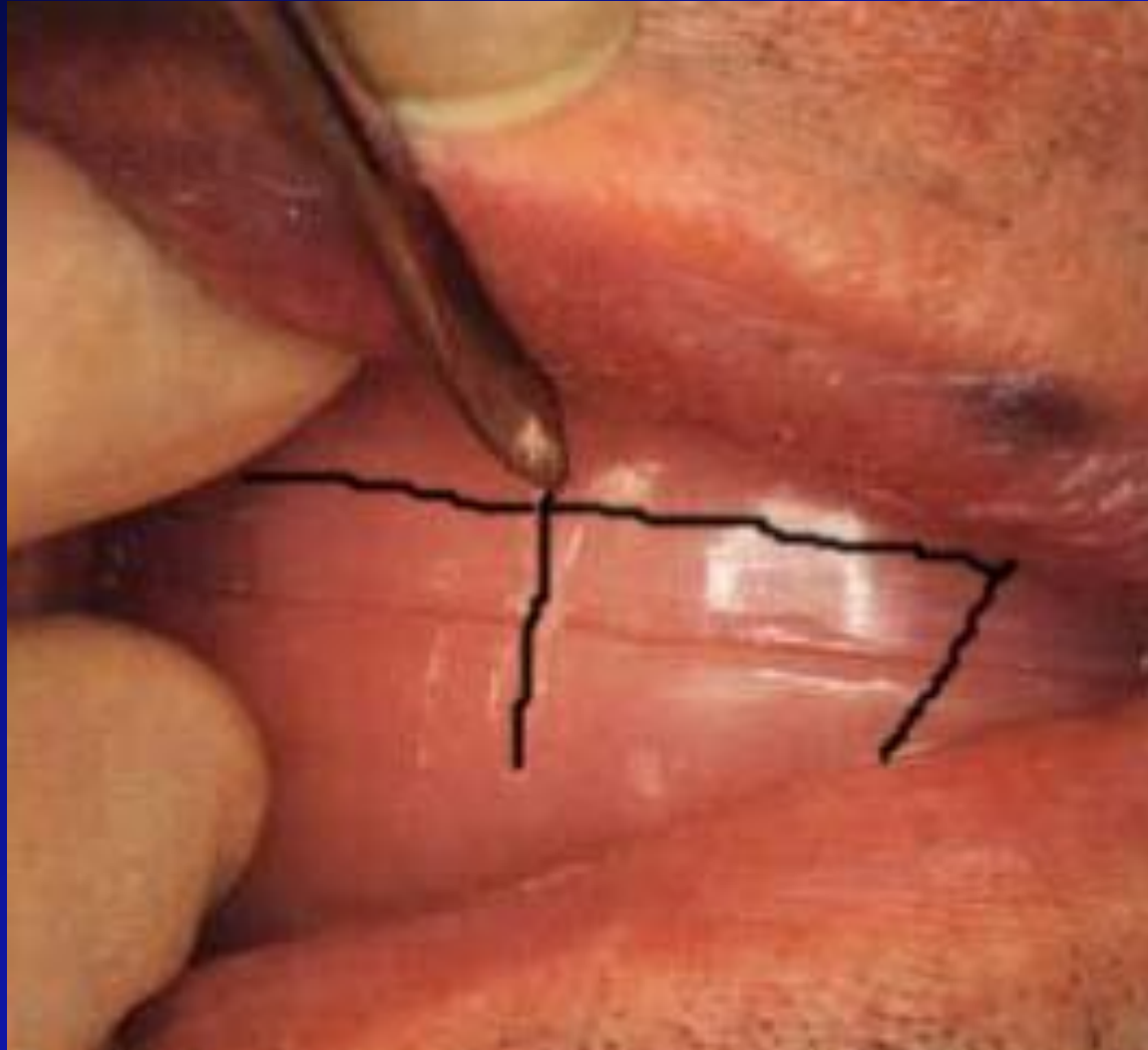
Yaw = setting the midline



## 2- The high lip line



# 3- The corner line.

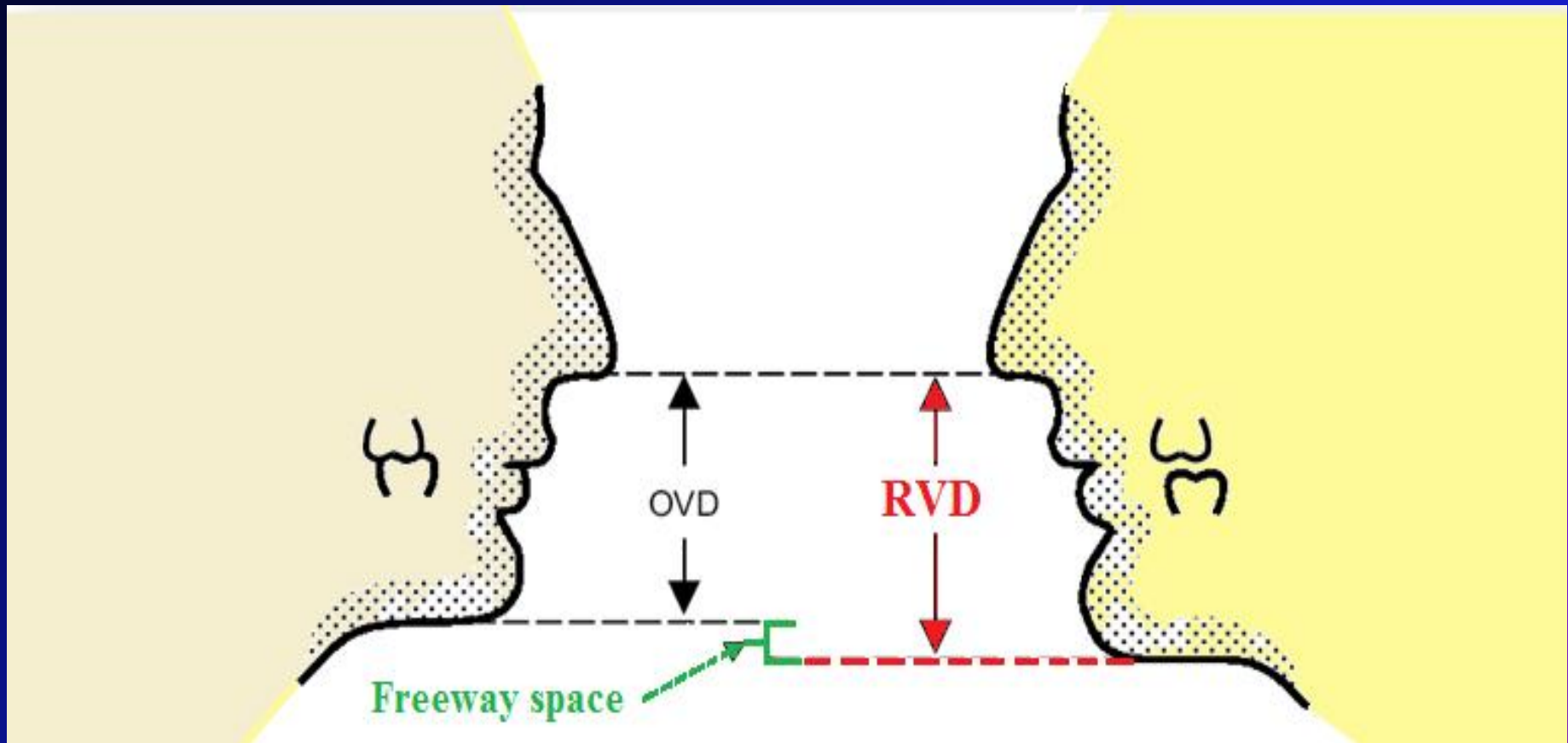


# II- THE VERTICAL DIMENSION

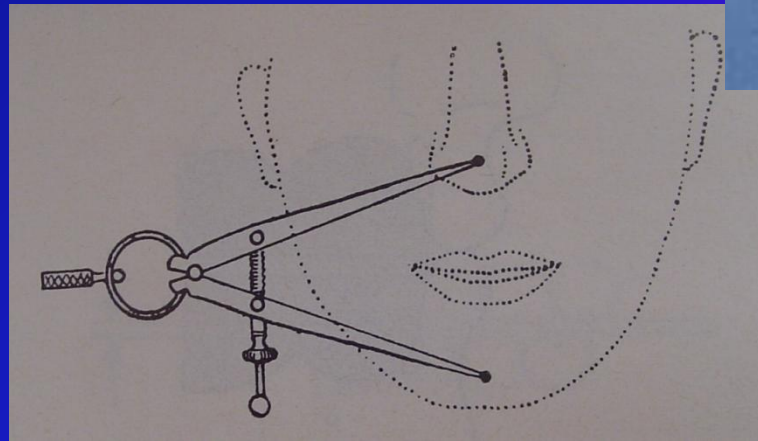


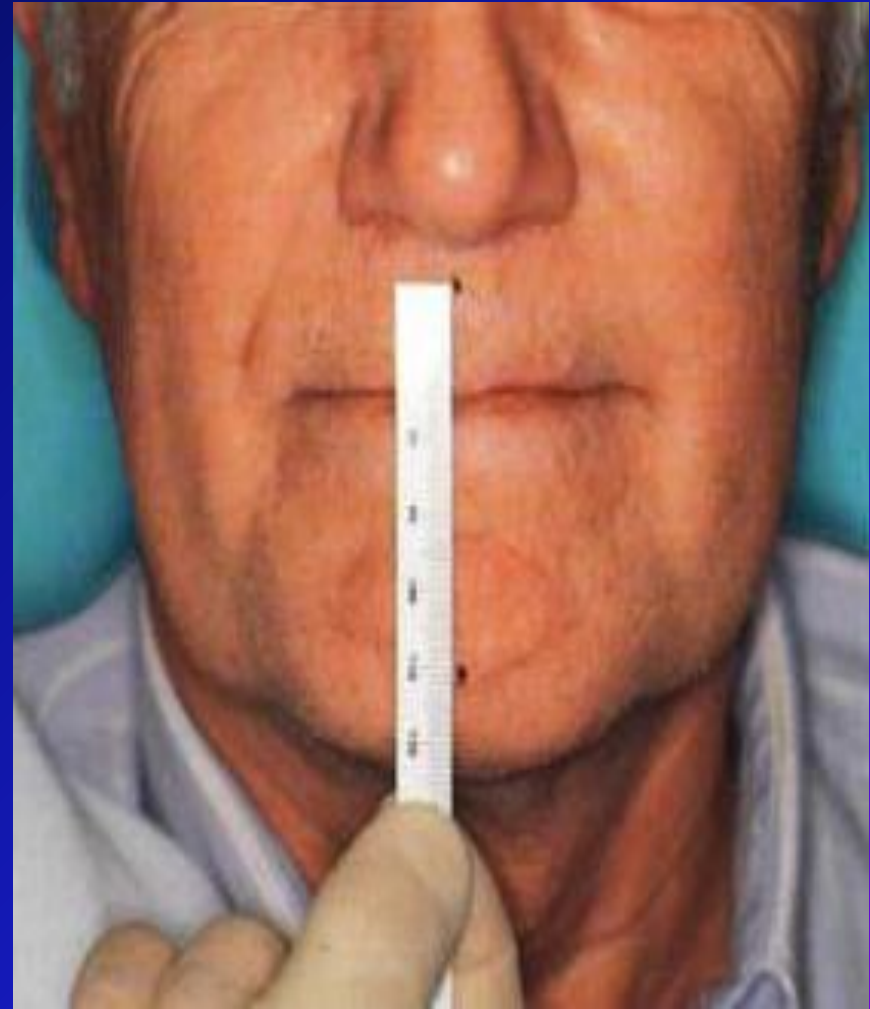
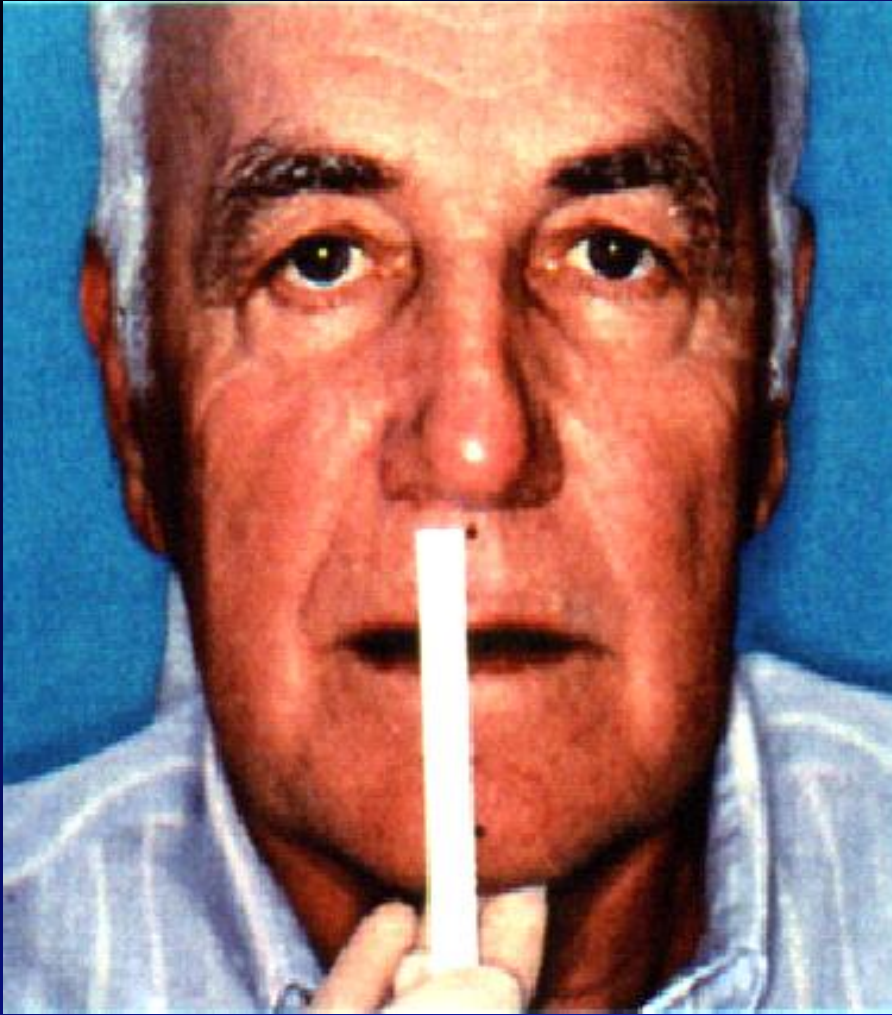
# Techniques of recording the vertical dimension of occlusion

# A- Rest Position (Free Way Space) Measurement



# Measuring the VD by a divider or by a caliper





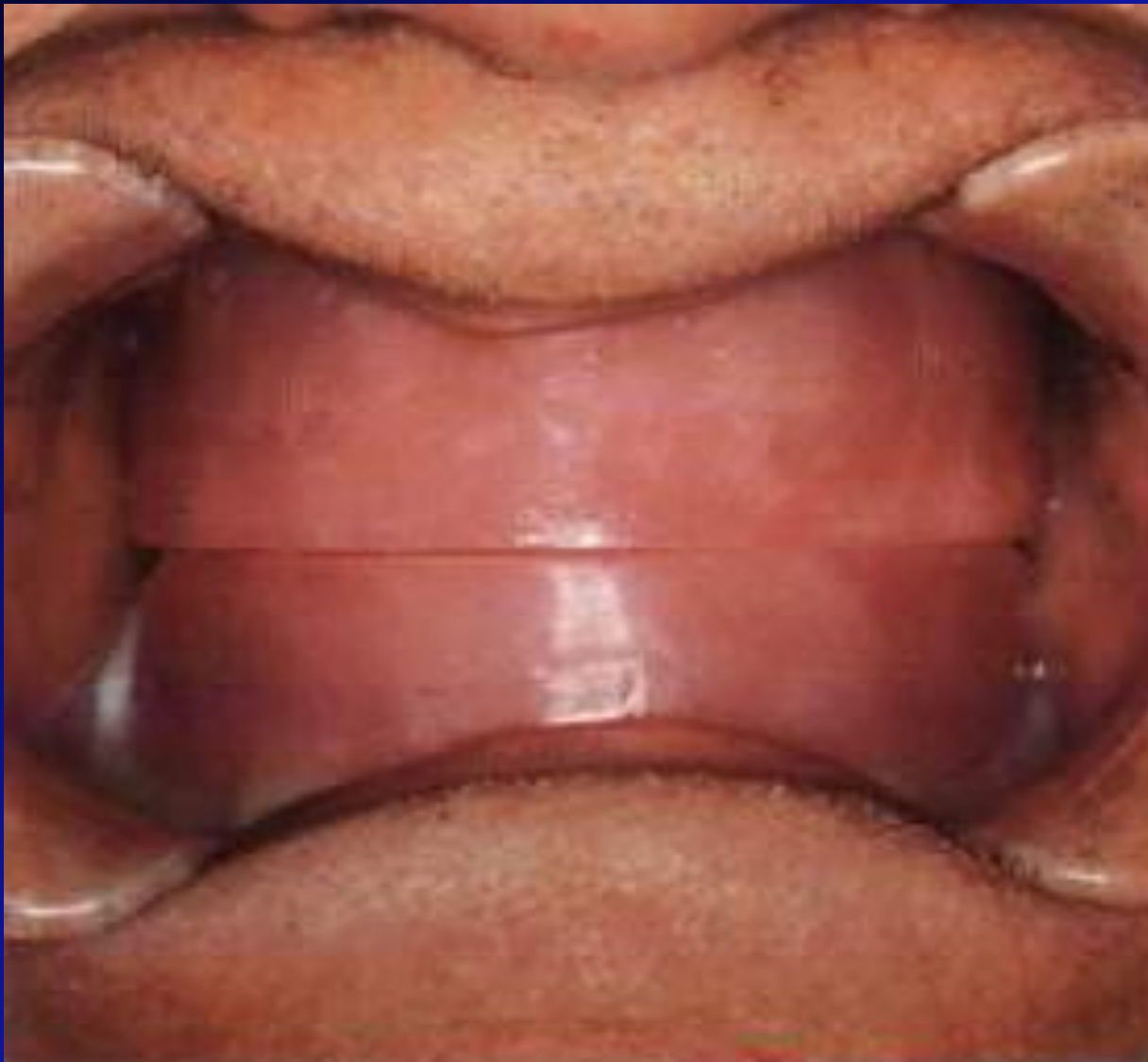




# Patient sitting upright

*Soft tissue position affected by posture*

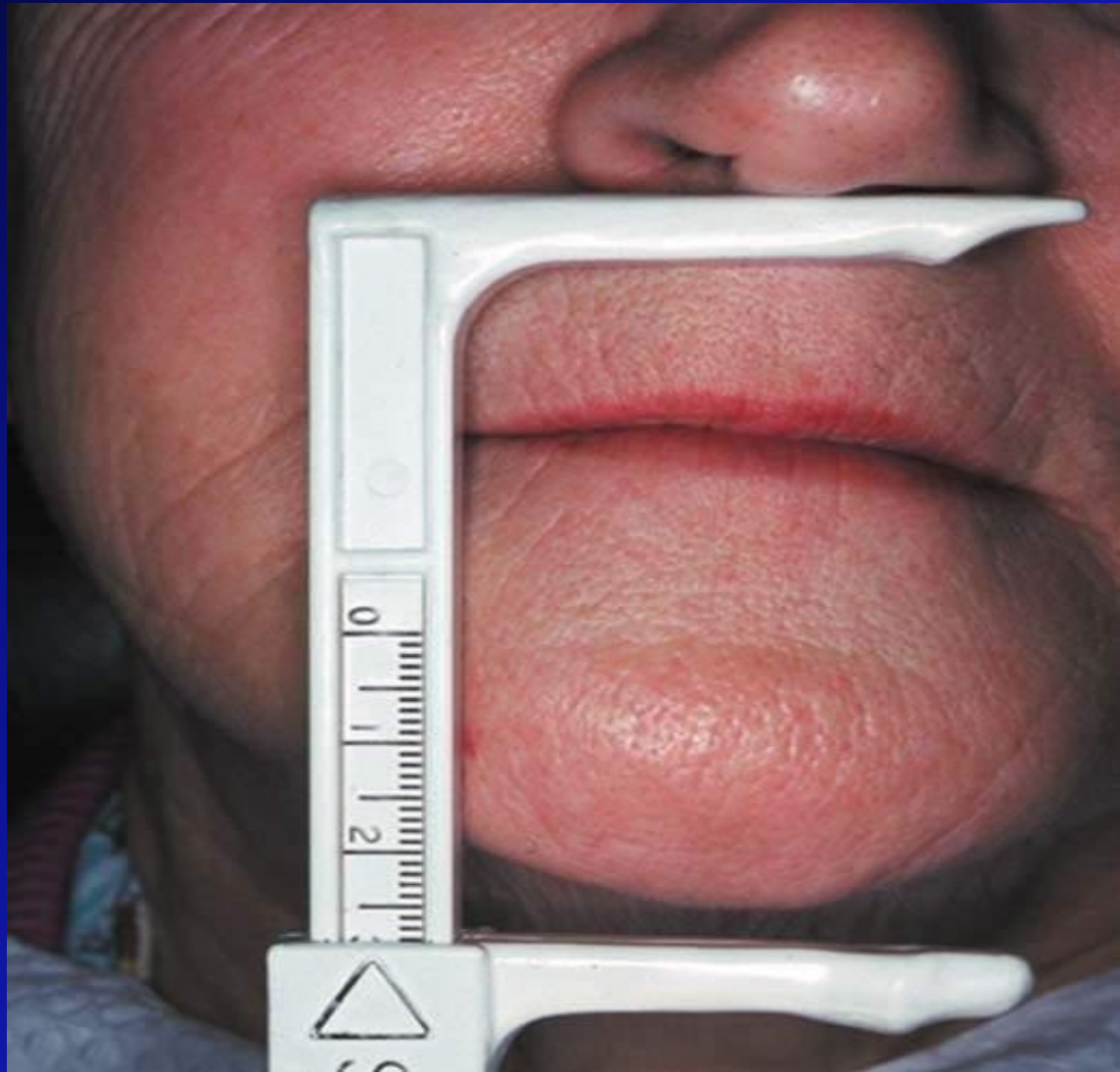




# B- Willis Measurement



Nose-chin distance = Canthus- commissure distance





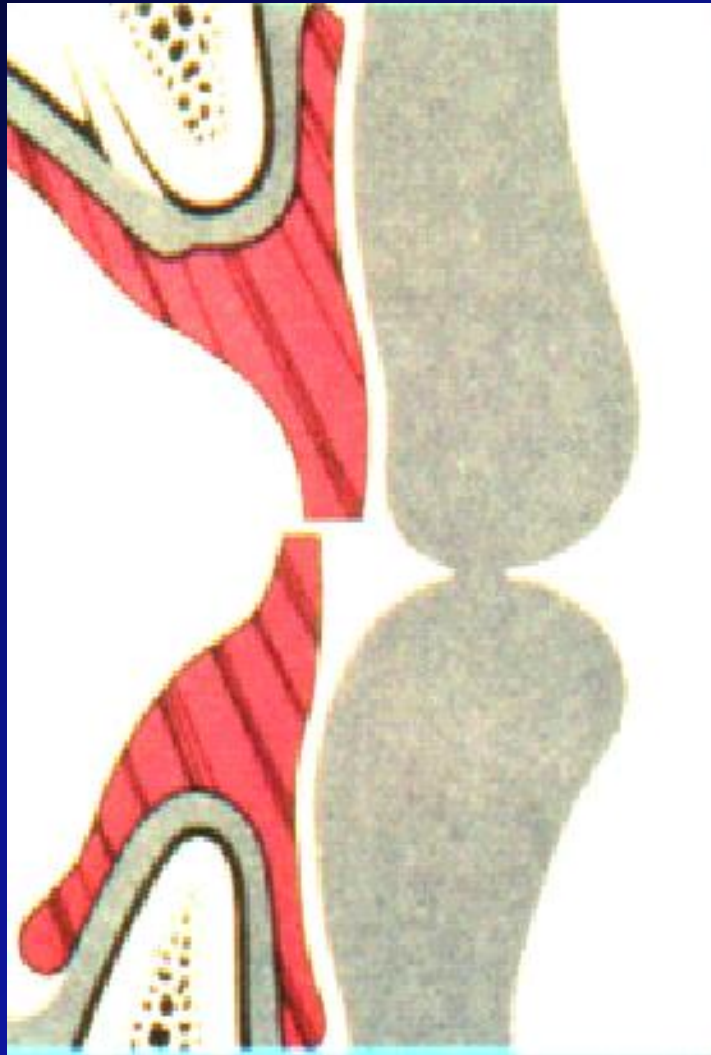
# C- Facial Expression

- The dentilabial sulcus
- The Nasolabial sulcus
- Check for freeway space









# Lip support



# Equal thirds



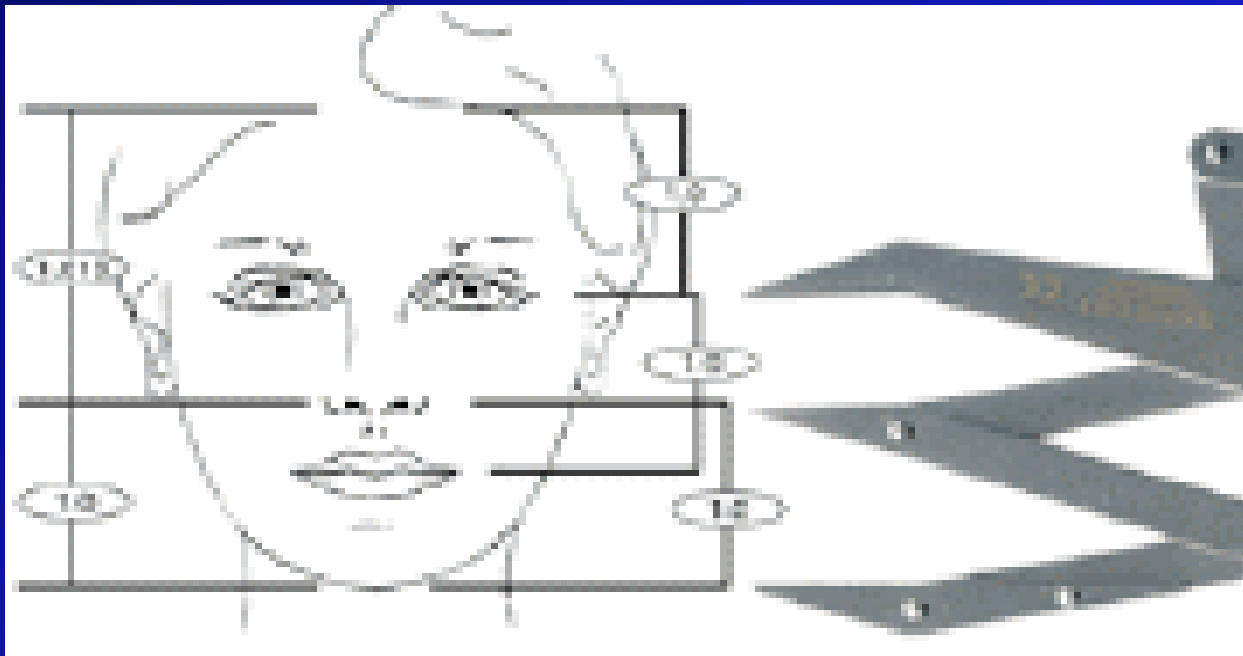
# D- Pre-extraction Records

- ***1- Facial measurements***
- ***2- Contour wire (profile tracing)***
- ***3- Articulated models***
- ***4- Acrylic resin face mask***
- ***5- Profile radiograph or photograph***

# E- Golden proportion

## •GOLDEN RULER

The Golden Ruler enables the dentist to measure the vertical dimension easily and simply.







Aids in the comparison of facial proportions to produce good esthetic.

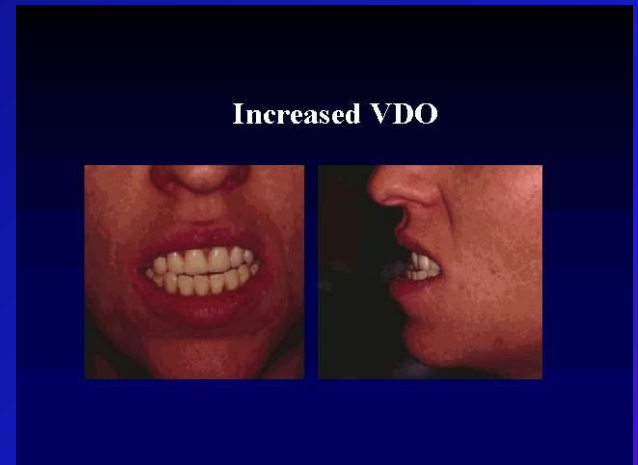
# EFFECTS OF EXCESSIVELY INCREASING VDO

*Discomfort*

*Trauma*

*Clicking of Teeth*

*Appearance*



# EFFECTS OF EXCESSIVELY REDUCING VDO

*Inefficiency*

*Cheek biting*

*Appearance*

*TMJ troubles*

*Angular cheilitis*



# **III- THE HORIZONTAL RELATIONSHIP**

**(CENTRIC RELATION)**

# Methods for registration of Centric relation



**1. The interocclusal registration method**

**2. The central bearing point  
(Gothic arch tracing) method.**

# I- Interocclusal Registration of Centric Relation

# *Difficulties of Retruding the Mandible*

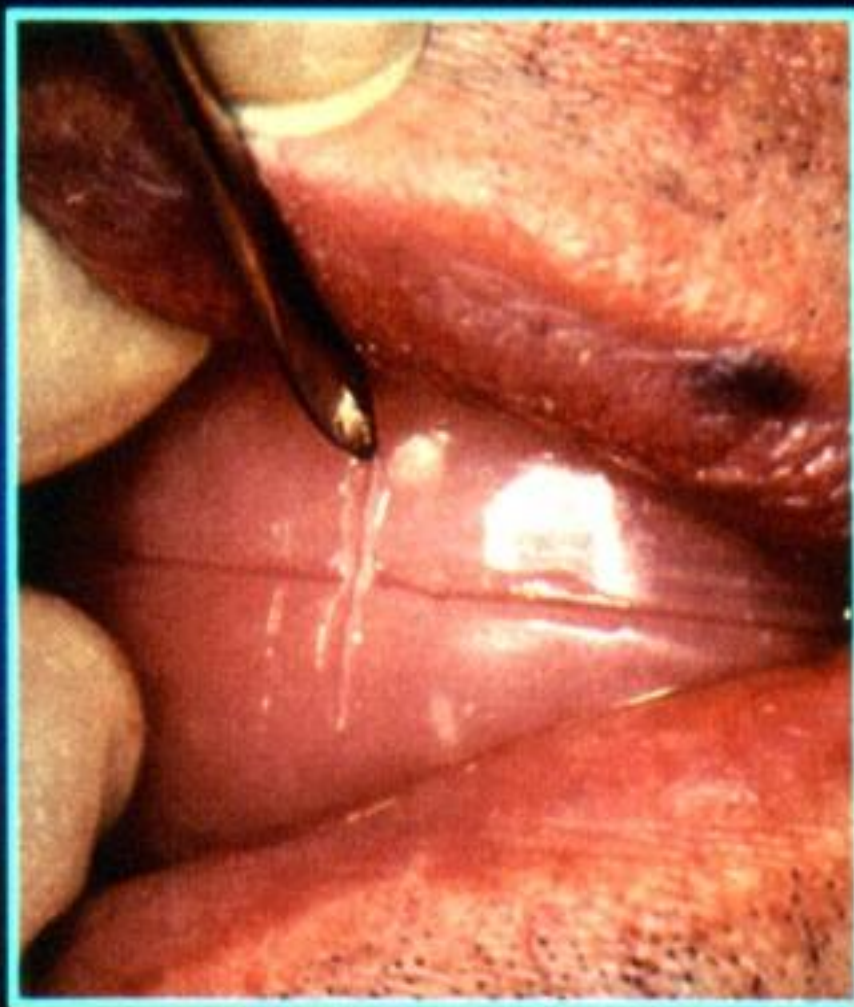
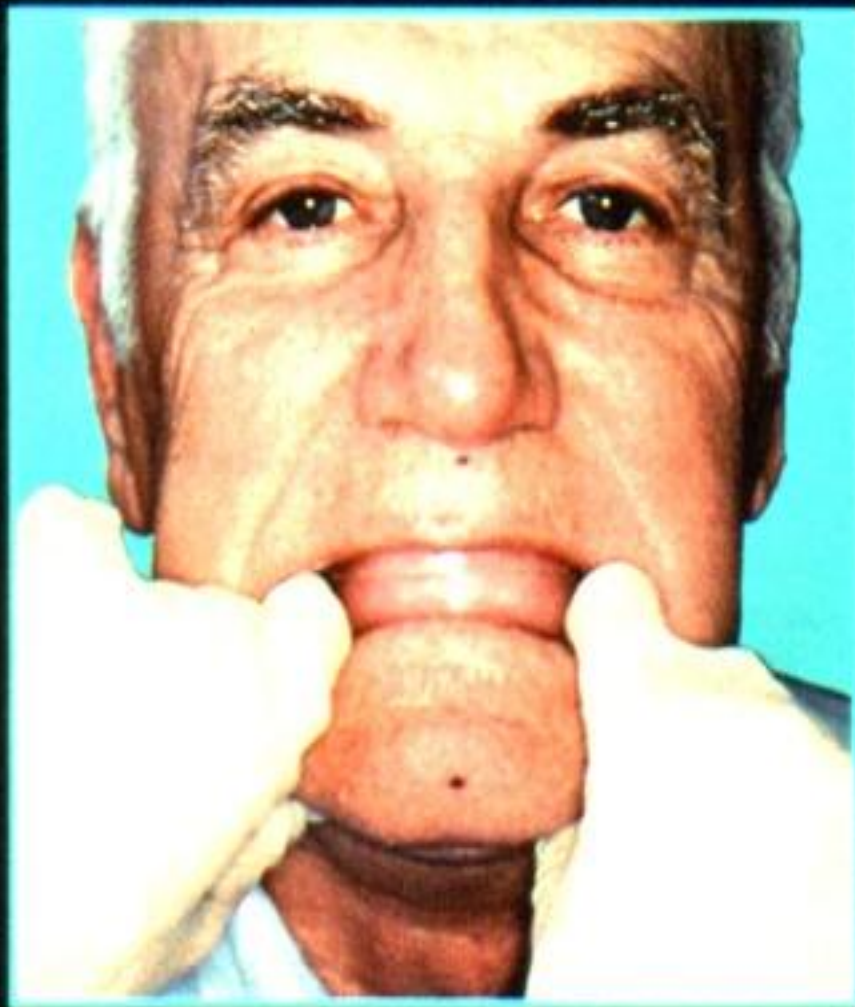
- Individuals, who have been without teeth for some considerable time.
- Many patients with only the natural anterior teeth standing.

# Aids to retrude the mandible

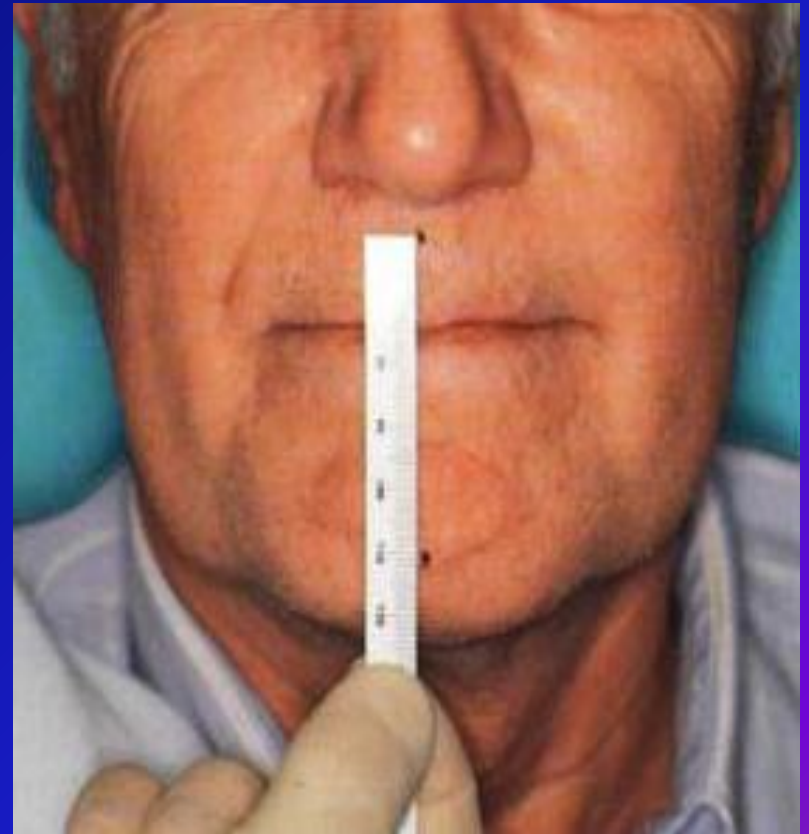
**Always ask the patient to close, never ask him to bite**

- **Tongue retrusion**
- **Relaxation**
- **Swallowing**
- **Fatigue**
- **Head position**
- **The temporalis muscle check**

# HORIZONTAL MAXILLOMANDIBULAR RELATIONSHIP RECORDS





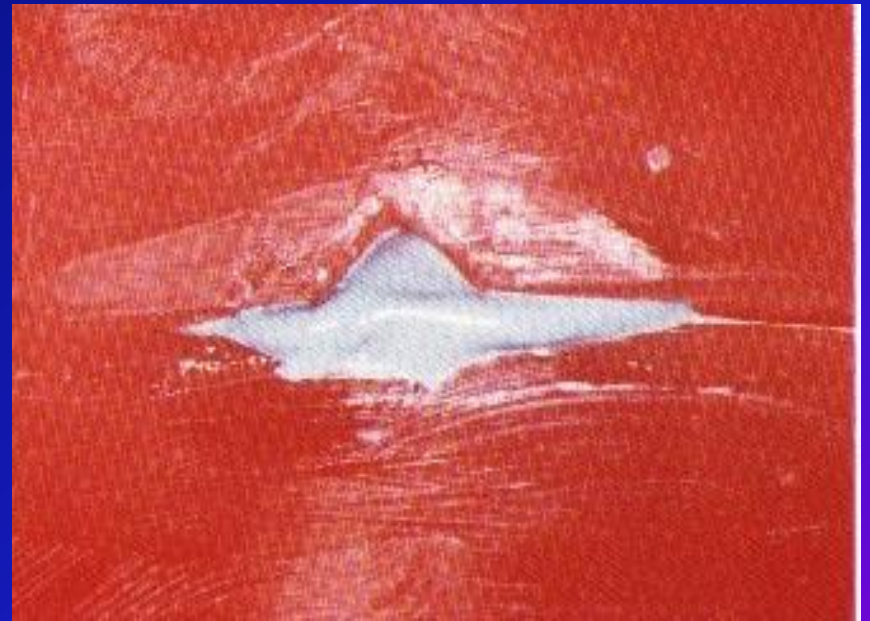
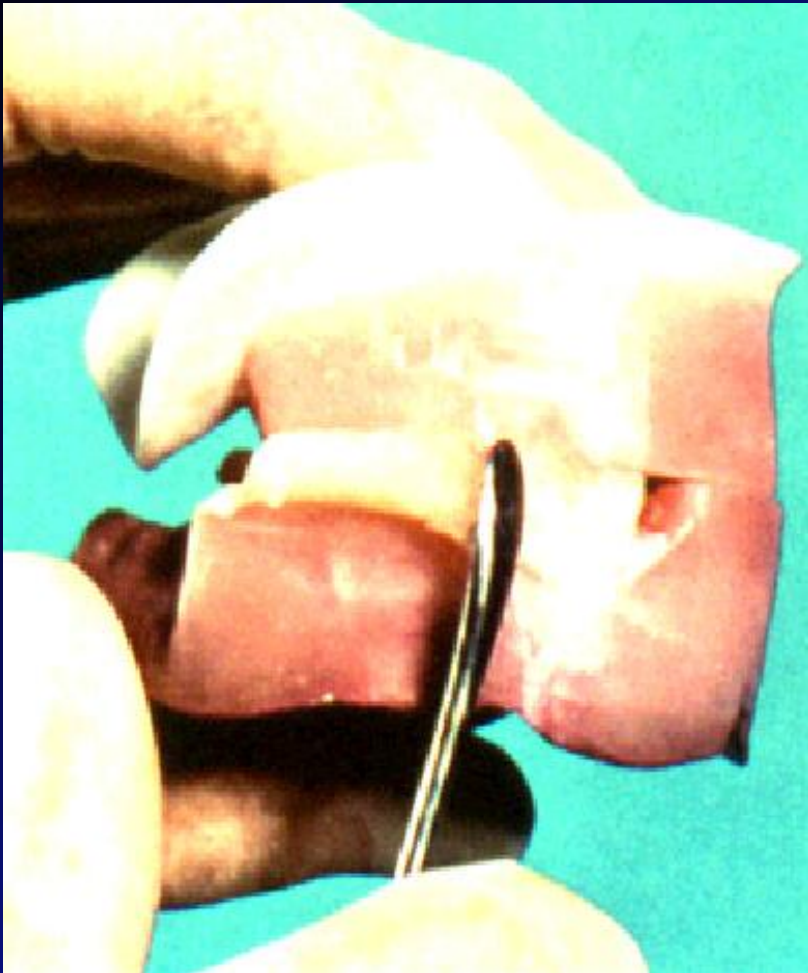


# **V-SHAPED NOTCHES ARE** **CUT IN THE LOWER RIM**



# *Wax interocclusal record*





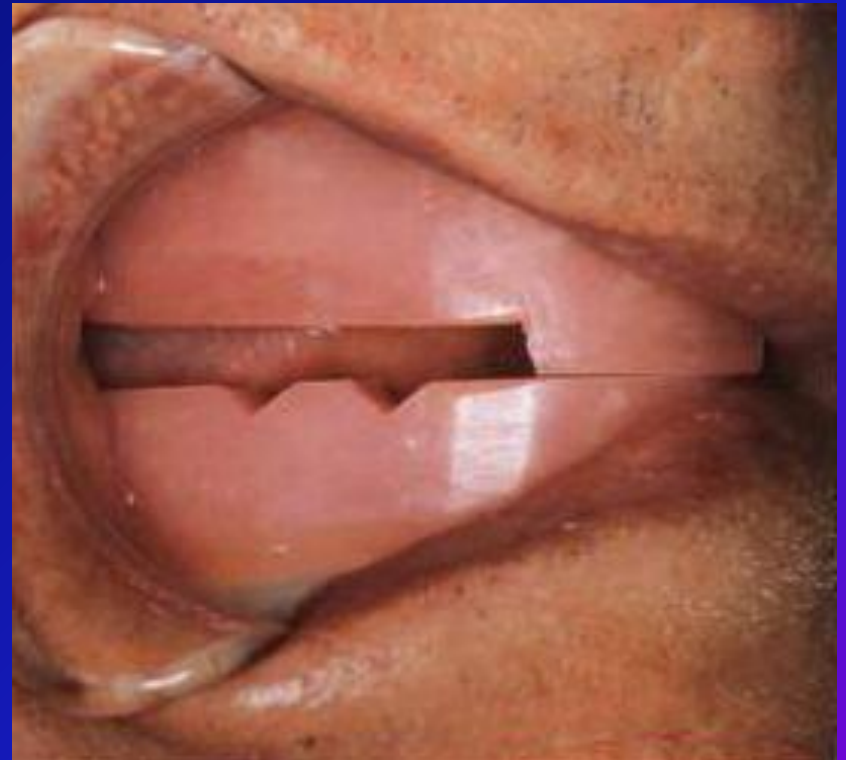
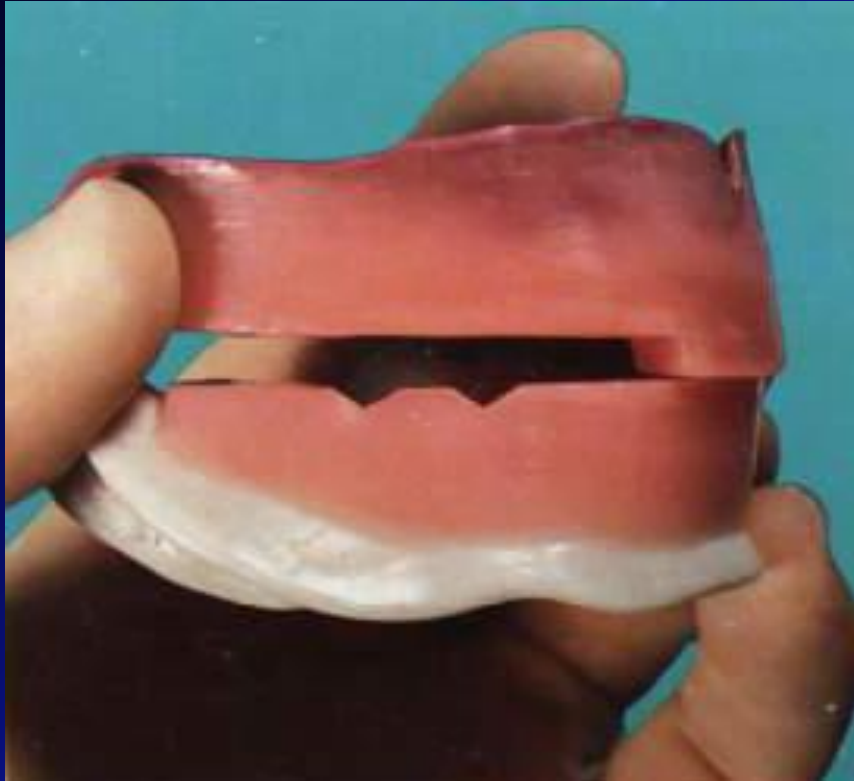
**Excess wax is removed**



# Zinc-oxide paste is used as interocclusal material



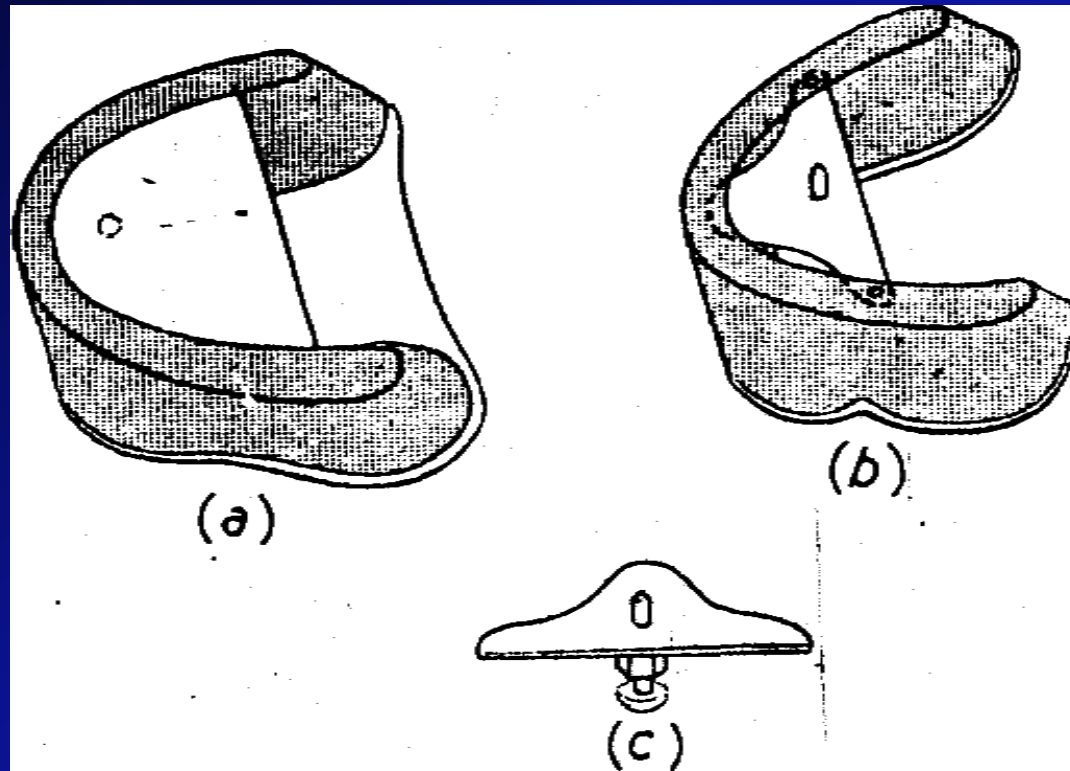








# II- Gothic Arch Tracing



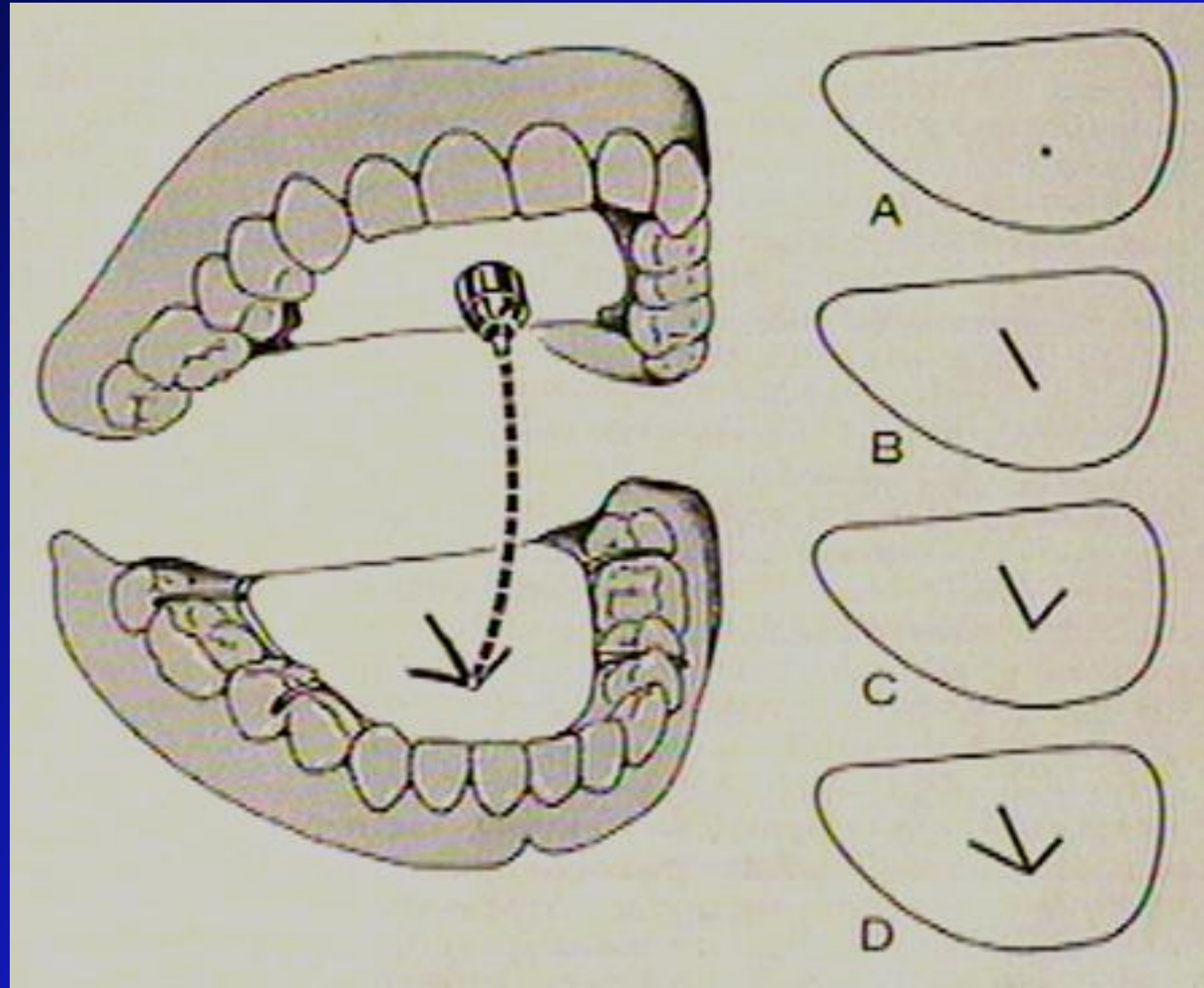
- a) A tracing plate.
- b&c) A carrier with a pointed stylus (tracing point) And a locking disc

# ***Gothic arch tracing***

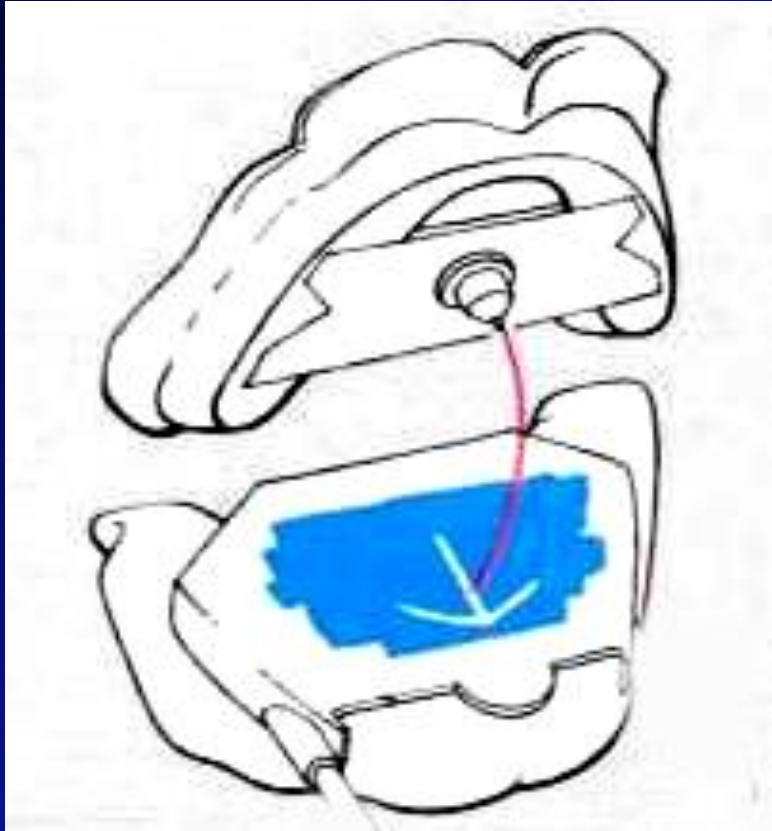




# *The tracing procedure*



# The recording pin do the tracing on the plate

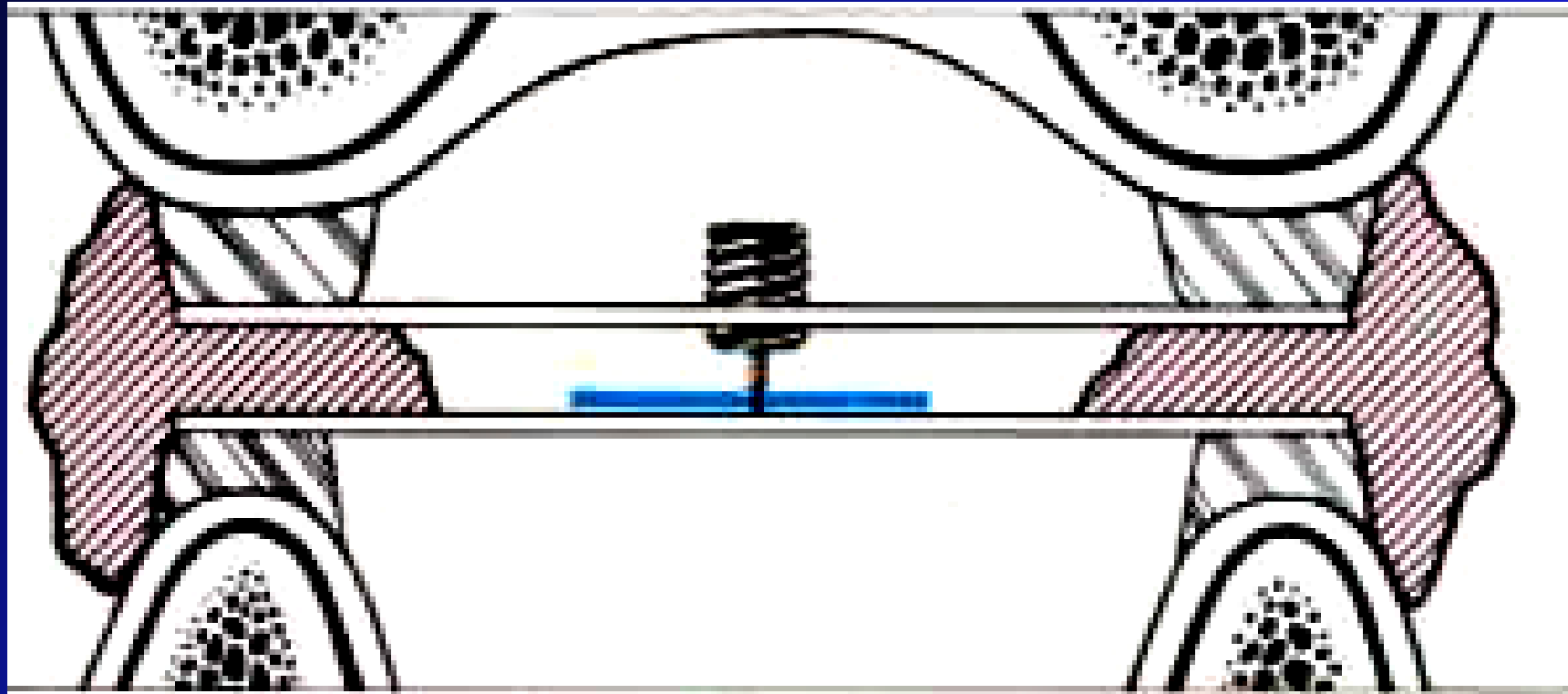


**The tracing procedure**

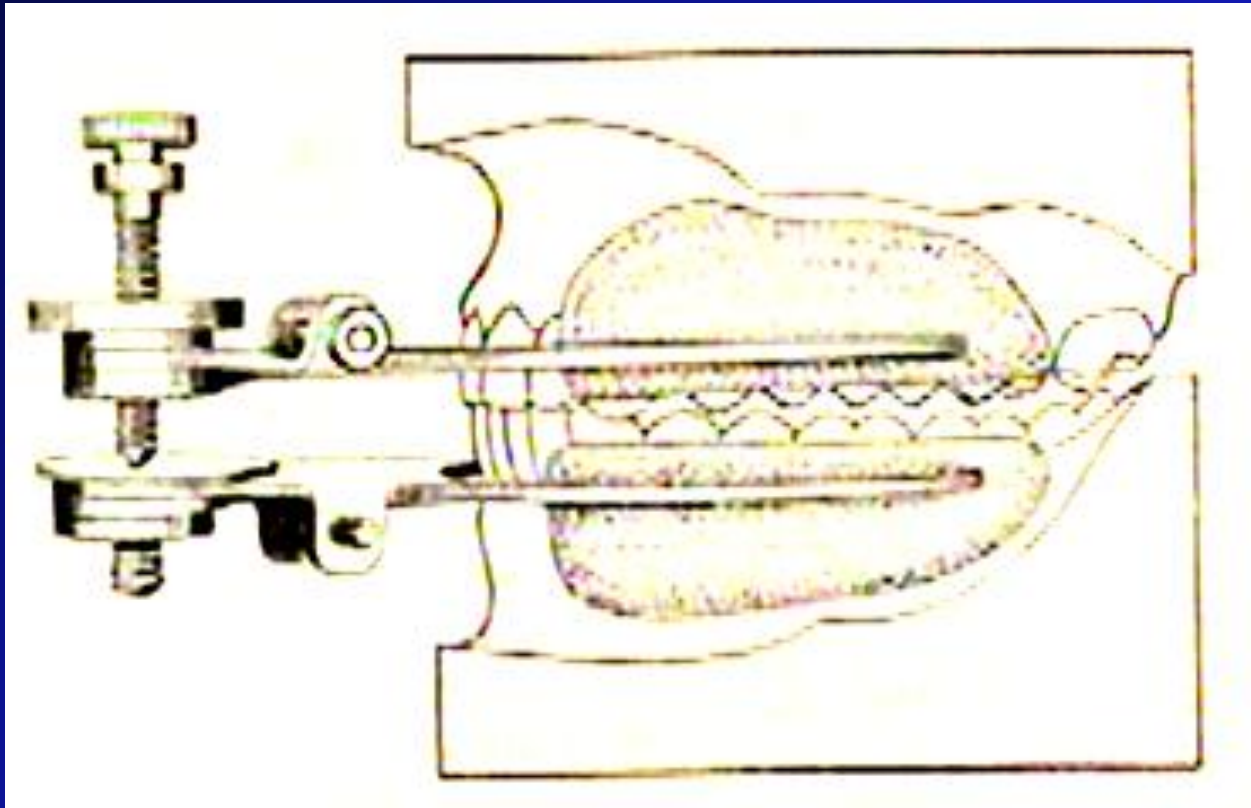


**The resultant tracing**

# *Sealing the upper and lower rims by plaster*



# B- Extraoral Tracing

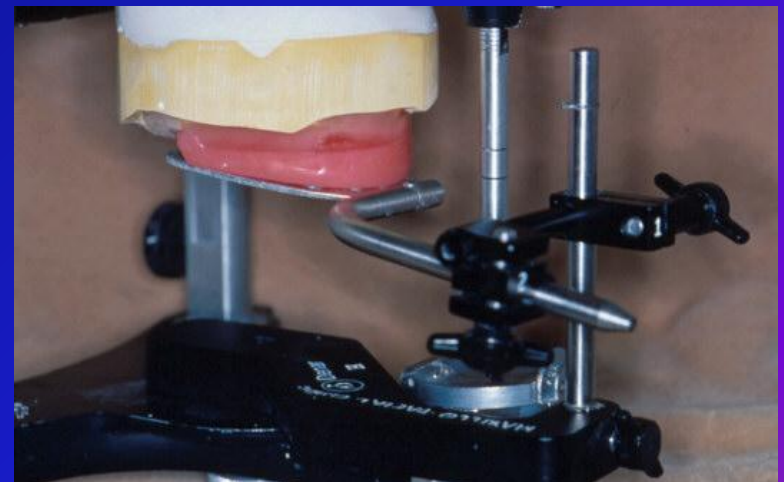




## Relating the maxilla to the hinge axis

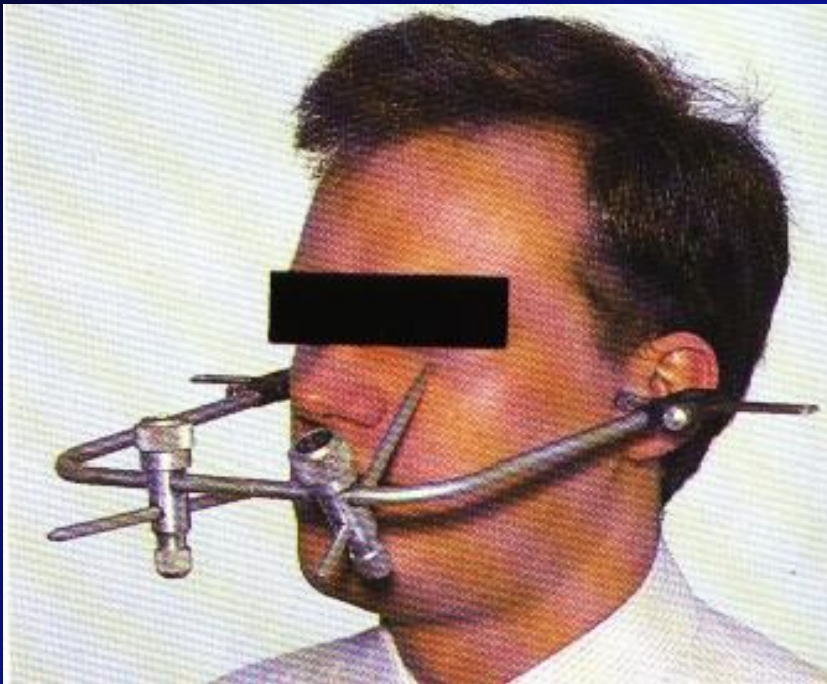


The facebow record and transefer

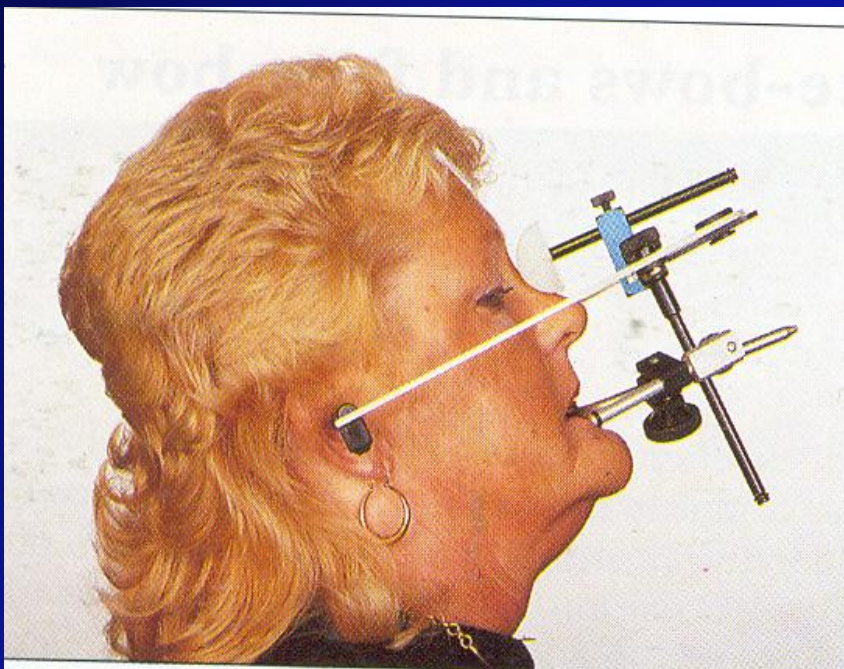
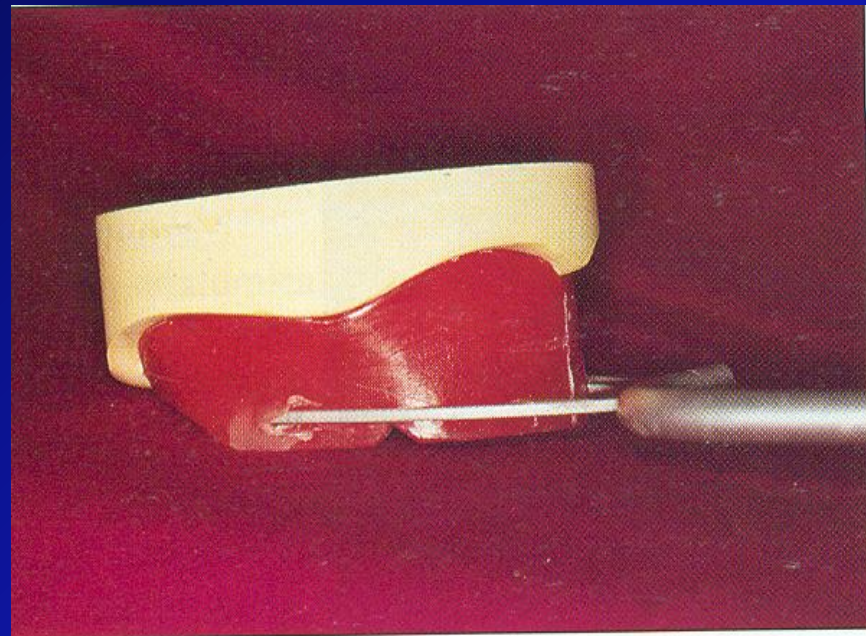




# Arbitrary & Kinematics' Face-bows

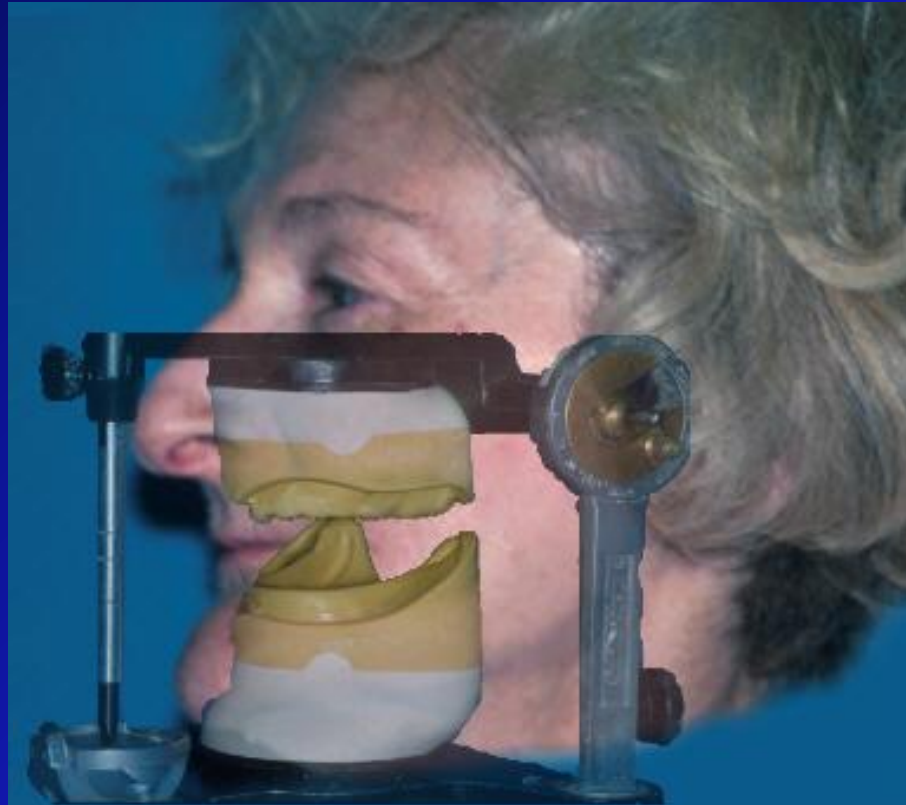




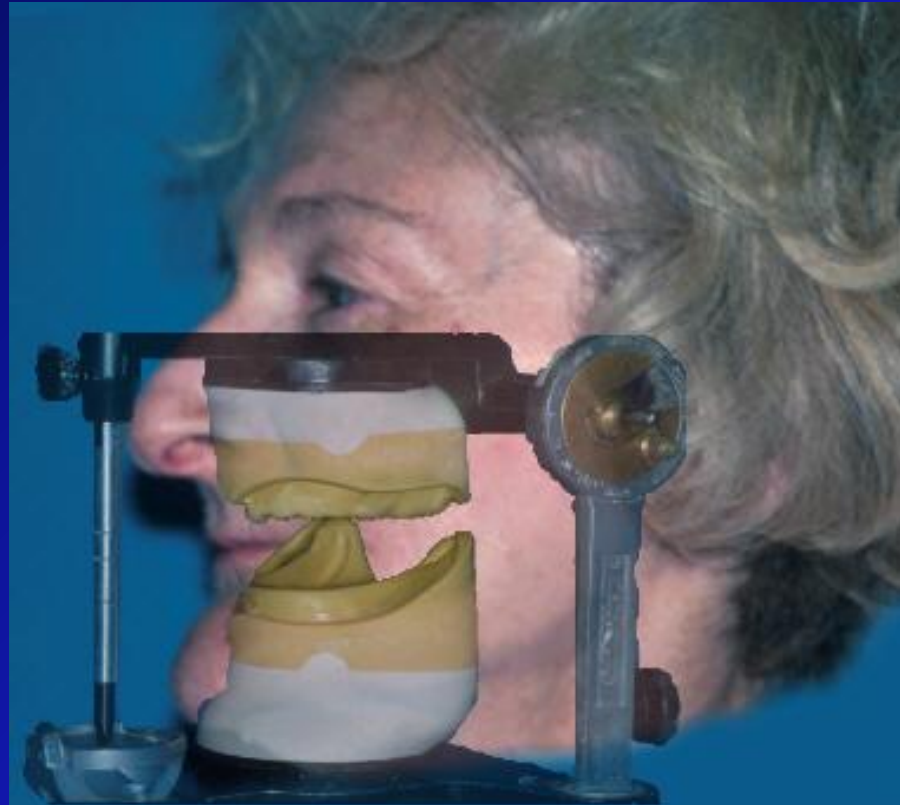
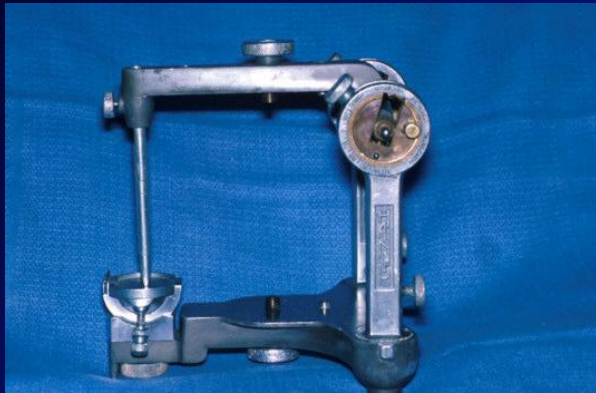




## ● Mounting the casts on the articulator



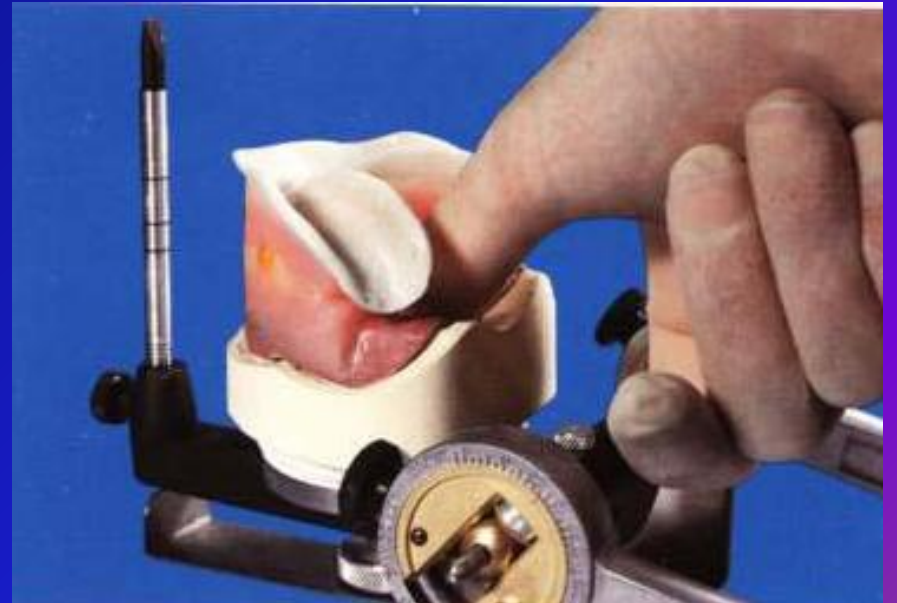
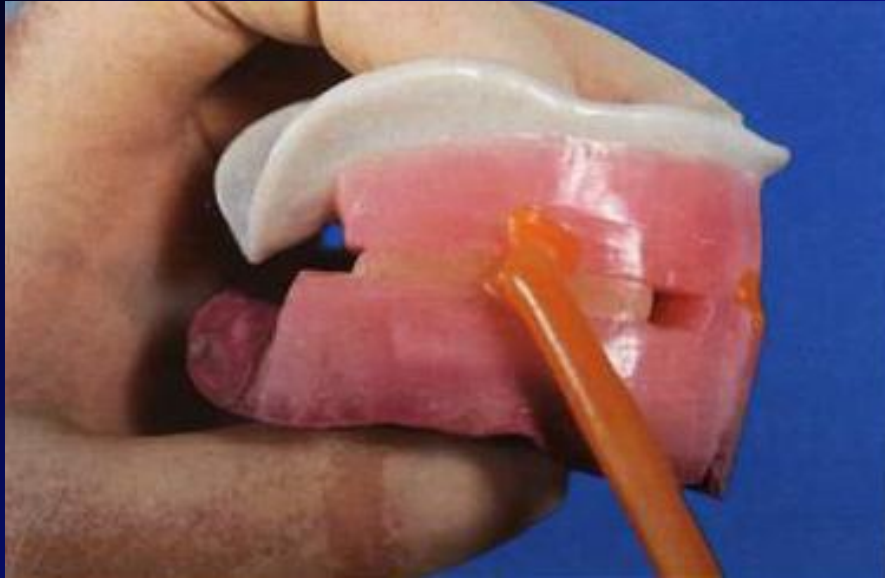
**Transfer our patient's . . .  
. . .maxillary and mandibular relationship. . .**

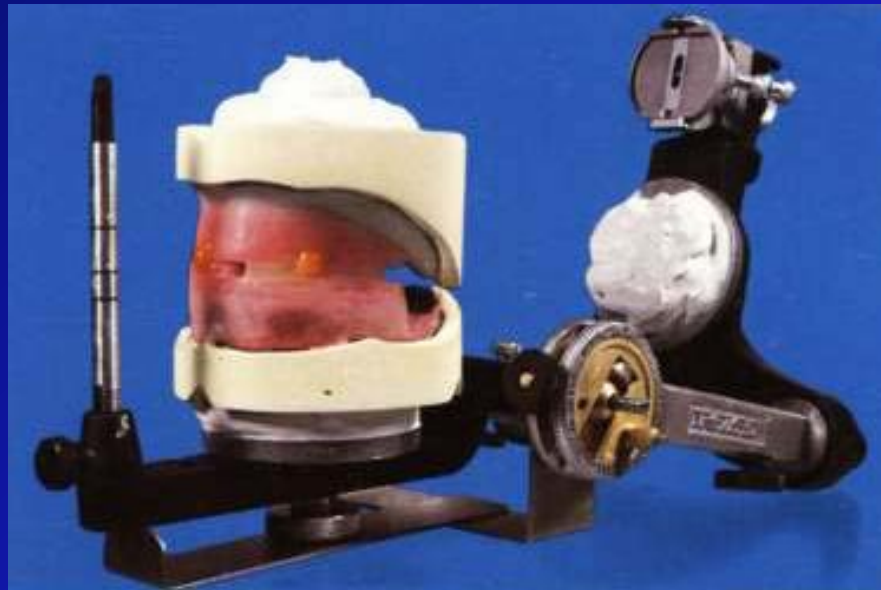


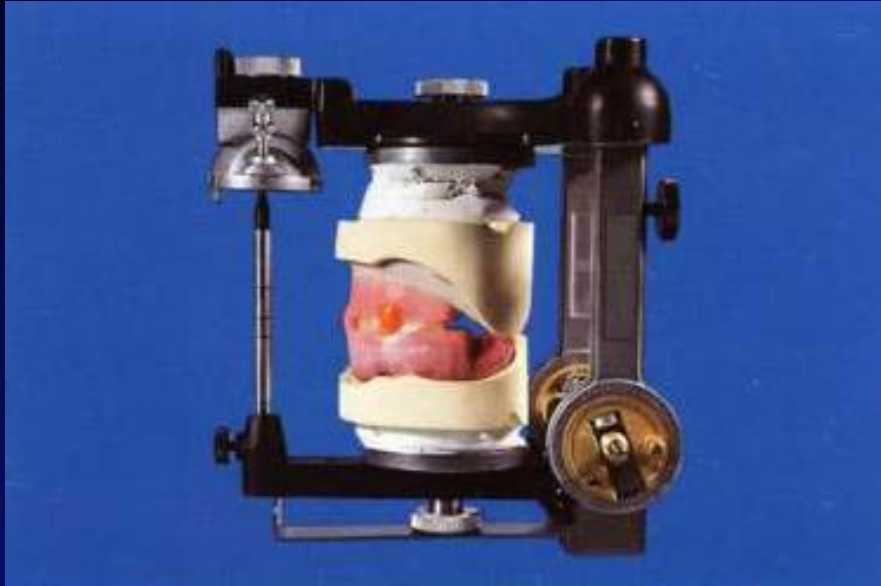
**. . . to our articulator**











**THE END**